		CLASSIFICATION SUCRET (SEC. CENTRAL INTELLIGEN		
		INFORMATION		50X1-H
				30/(1-1
C	COUNTRY	USSR/Germany (Soviet Zone)	DATE DISTR. 24 Mar 52	ĺ
S	SUBJECT	Anti-Aircraft Tactics and Techniques	NO. OF PAGES 5	
			NO. OF ENCLS.	
			SUPPLEMENT TO	
			REPORT NO.	50X1-
	THIS DECOMEST CO OF THE UNITED ST AND TOL, OF THE	OTICAL PROBMATION APPILITIES THE PUTTOMAL REPERSI ATCA: STITUS TO MILIOURUSE FITTLE (8, SICTIONS 753) N.S. CONC. OR SUMMARY, 112 PARKENISTION OR PUTTO.	THIS IS UNEVALUATED INFORMATION	
	LATION BY 115 CO PROMISSING ST LO	intight to no excels? At a "restance like transmiss.  P. THE REPRODUCTION OF TOIS FOR IS FRONTED TO.	THIS IS UNEVALUATED INFORMATION	
				50X1-I
				30/1-1
-				
				*
		Trice i		\$
		VMOS is under MGB - MVD troops and is	s connected with the PVO system.	
		manned by MVD troops. Fire-fighting control. The basic duty of two process	personne? are militarized and under MVD	
		VMOS is under MGB - LVD troops and is  manned by MVD troops. Fire-fighting control. The basic duty of VMOS post aircraft movements over USSR territor	personne? are militarized and under MVD	
	3.	manned by MVD troops. Fire-fighting control. The basic duty of two process	personne? are militarized and under MVD	
	3.	manned by MVD troops. Fire-fighting control. The basic duty of two process	personne! are militarized and under MVD is at prese t is close observation of	More particular to the control of th
		manned by MVD troops. Fire-fighting control. The basic duty of VNUS post aircraft movements over USSR territor	personne! are militarized and under MVD at prese t is close observation of y.  Radar is.at	Abstract design of the second
		manned by MVD troops. Fire-fighting control. The basic duty of VNOS post aircraft movements over USSR territor present, on a very small scale. In was only one rapar set. It was controven had its own codes and convendent	personne! are militarized and under MVD sat prese t is close observation of y.  Radar is, at l2th Guards Mech Div), there colled by the MGB, not by the division an	The state of the s
		manned by MVD troops. Fire-fighting control. The basic duty of VNUS post aircraft movements over USSR territor present, on a very small scale. In was only one rapar set. It was controven had its own codes and command an was a senior lientenant named Bogdasa technician, three sergentials	represented and under MVD system. Posts are personnel are militarized and under MVD is at prese t is close observation of y.  Radar is, at light Guards Mech Div), there colled by the MGB, not by the division and discommunication channels. The commander row whose staff included one lieutement	
		manned by MVD troops. Fire-fighting control. The basic duty of VNOS post aircraft movements over USSR territor present, on a very small scale. In was only one radar set. It was controven had its own codes and command an was a senior lientenant named Bogdasa technician, three sergeant-technician soldiers who manned an observation popularters. The enterpresent property of the server was controlled to the server was a serior to the enterpresent to the server was a serior to the enterpresent to the server was a serior to the enterpresent to the server was a serior to the serior to t	Posts are personnel are militarized and under MVD is at prese t is close observation of the personnel are militarized and under MVD.  Radar is, at P2th Guards Mooh Div), there will be a second on the model one lieutenant is who did work on the radar, and 8 - 12 st mounted on top of divisional head-	
		manned by MVD troops. Fire-fighting control. The basic duty of VMVS post aircraft movements over USSR territor present, on a very small scale. In was only one racar set. It was controven had its own codes and command an was a senior lientenant named Bogdasa technician, three sergeant-technician soldiers who manned an observation popurators. The antenna was on the roomattached to division for quarters, retary training. But in operational reconstructions	Radar is, at [22th Guards Mooh Div], there is who did work on the radar, and 3 - 12 st mounted on top of divisional head-f of the building. All personnel were	
		manned by MVD troops. Fire-fighting control. The basic duty of VNOS post aircraft movements over USSR territor present, on a very small scale. In was only one radar set. It was controven had its own codes and command an was a senior lientenant named Bogdasa technician, three sergeant-technician soldiers who manned an observation popularters. The enterpresent property of the server was controlled to the server was a serior to the enterpresent to the server was a serior to the enterpresent to the server was a serior to the enterpresent to the server was a serior to the serior to t	Radar is, at [22th Guards Mooh Div], there is who did work on the radar, and 3 - 12 st mounted on top of divisional head-f of the building. All personnel were	
		manned by MVD troops. Fire-fighting control. The basic duty of VMVS post aircraft movements over USSR territor present, on a very small scale. In was only one racar set. It was controven had its own codes and command an was a senior lientenant named Bogdasa technician, three sergeant-technician soldiers who manned an observation popurators. The antenna was on the roomattached to division for quarters, retary training. But in operational reconstructions	Radar is, at [22th Guards Mooh Div], there is who did work on the radar, and 3 - 12 st mounted on top of divisional head-f of the building. All personnel were	
	4.	manned by MVD troops. Fire-fighting control. The basic duty of VNUS post aircraft movements over USSR territor present, on a very small scale. In was only one racar set. It was controven had its own codes and command an was a senior lientenant named Bogdasa technician, three sergeant-technician soldiers who manned an observation por quarters. The antenna was on the rocattached to division for quarters, rattary training. But in operational mandirectly to his own superiors.	Radar is, at [22th Guards Mech Div], there colled by the MGB, not by the division and communication channels. The commander rrov whose staff included one licutenant is who did work on the radar, and 3 - 12 st mounted on top of divisional headfof the building. All personnel were tions and administration, including militters, the unit commander reported	
	4.	manned by MVD troops. Fire-fighting control. The basic duty of VNDS post aircraft movements over USSR territor present, on a very small scale. In was only one radar set. It was controven had its own codes and command an was a senior lientenant named Bogdasa technician, three sergeant-technician soldiers who manned an observation por quarters. The antenna was on the rocattached to division for quarters, ratary training. But in operational mandirectly to his own superiors.  A characteristic feature of Soviet Aamaneuver. The communication divided Amaneuver.	Radar is, at  [12th Guards Mech Div), there  related by the MGB, not by the division and d communication channels. The commander rev whose staff included one licutement s who did work on the radar, and 3 - 12 st mounted on top of divisional head- f of the building. All personnel were tions and administration, including mili- tters, the unit commander reported  is its static quality and lack of	
	4.	manned by MVD troops. Fire-fighting control. The basic duty of VNUS post aircraft movements over USSR territor was only one razar set. It was controven had its own codes and command an was a senior lientenant named Bogdasa technician, three sergeant-technician soldiers who manned an observation por quarters. The antenna was on the rocattached to division for quarters, ratary training. But in operational mandirectly to his own superiors.  A characteristic feature of Soviet AA maneuver. The country is divided up that and interceptor aircraft installant.	Radar is, at  [12th Guards Mech Div), there  [2th Guards Mech Div), there  [3th communication channels. The commander  [3th converse of divisional head-  [3th could work on the radar, and 3 - 12  [3th counted on top of divisional head-  [3th counted on the radar, including militers, the unit commander reported  [3th counted on top of divisional head-  [3th counted on the radar, including militers, the unit commander reported  [3th counted on the radar of the counter of th	
	4.	manned by MVD troops. Fire-fighting control. The basic duty of VNDS post aircraft movements over USSR territor present, on a very small scale. In was only one radar set. It was controven had its own codes and command an was a senior lientenant named Bogdasa technician, three sergeant-technician soldiers who manned an observation por quarters. The antenna was on the rocattached to division for quarters, ratary training. But in operational mandirectly to his own superiors.  A characteristic feature of Soviet Aamaneuver. The communication divided Amaneuver.	response are militarized and under MVD personne are militarized and under MVD as at prese t is close observation of y.  Radar is, at 12th Guards Mech Div), there were constructed by the MGB, not by the division and communication channels. The commander rov whose staff included one licutement who did work on the radar, and 8 - 12 st mounted on top of divisional headf of the building. All personnel were tions and administration, including militters, the unit commander reported  is its static quality and lack of into sectors served by specific radar, to avoid their own AA.	

SECRET/SECURITY INFORMATION

## " SECRET

50X1-HUM

5.

Advanced air fields are provided with AA (probatly 27 cm.) and figurer aircraft. During battle or near the front, fighter craft make routine continuous control flights over airfields and important installations. Their purpose is to deflect enemy aviation and gain time for other fighter oraft to take off. Bridgeheads and river crossings, for gain time for other fighter oraft to take off. example, the annual energies on crossing the Elbe River in Germany, have fighter aircraft protection. Consequently they have no AA. During offense and just before an attack begins, fighter aircraft will be employed against enemy troops. On defense, ground artillery is employed. AA generally is in the rear area.

6.

As a general rule AA is not set up in forward areas. If any AA is used, it will be 37 mm mobile gunse

Probably 1,500 to 2,000 shells per plane were fixed. In general, Af fire simed at a

definite target was extremely ineffective. However, massed fire around important objectives, such as the city of Moscow, was really effective. Guns were placed in great concentration and fired, not at specific targets, but according to an area-wide pattern so that literally a wall of thre was crested.

As a rule AAA guns and AA machine guns supporting tactical under field operations will not be dug in. A suitable place is cleaned off and leveled where the guns are

set up. The position may be 10 to 20 centimeters lover than the surrounding ground level. The purpose is to give stability to the gum, not necessarily to protect it. As usual the gum crews prepare their slit trenches.

The position may be 10 to 20 centimeters lower than the surrounding ground

the Red Army's AA defense of field forces against German planes in

only two German planes actually shot down by Soviet AA.

7.

8.

9.

World War II

Not very effective

10.

11.

AA guns usually are towed by trucks or tracture. There is one place of multi-parrelled AA squipment. This is a four-barrelled machine-gun caliber 12.5 or 27.6 mounted on an American half-track (armored vehicle). All four barrels are fired by the same trigger. In a tank regiment there is one anti-aircraft machine-gun company with two platons, each of which has two half-tracks mounted with four-barrel AA machine guns. Trains with AAA oars do exist; generally such cars are concentrated around large and important railway junctions and installations. Such cars would be under the control of Army or front headquarters and would probably not be attached to lower units.

12.

Allotment of AAA and AA MG units will be made to points of most probable attack by enemy aviation and the assignment of such units from reserve will be regulated by developments in the situation. Generally speaking in the forward areas various level units contain their own AA defense elements. For example, a tank regiment has its
AA MG company; tank and mechanized divisions will have one AA regiment and as Army level there will be at least one ha division.

" APABÉT	50X1-HU
-«- SEGRET	
	· · · · · · · · · · · · · · · · · · ·
	_ :
TAR rockets do not exist in the Soviet Augu-	the Germans
did use such rockets nothing mimilar to the German rockets in forces,	the Coviet
an AAA officer in his or receives the same tactical training as officers of	cs
arms except with concentration on AA terries.	other .
an AAA NOO in his unit (regimental) school would be given gen	avai
infantry tactics training.	
<u>'</u>	,
fire opened and conducted in AlA combat	
At the instruction of the commanding officer. In general he will open fire w	hen an
enemy plane comes within the effective range of his guns.	
	A Particular of the Particular
by small trees and branches collected locally.	The control of the co
	· · · · · · · · · · · · · · · · · · ·
Such training is generally done on an artillery range using propeller-driven; bombers. Since fire is by batteries the gun is eimed by track; plane. The samunition is empor-pieroing incendiary and tracer: generally each shell will be a tracer shell.	nedion
Such training is generally done on an artilicity range using propeller-driven; bombers. Since fire is by batteries the gun is simed by track plane. The annunition is empor-pieroing meandlery and tracer: generally each plane.	guns. nedium
Such training is generally done on an artilicity range using propeller-driven; bombers. Since fire is by batteries the gun is simed by track plane. The annunition is empor-pieroing meandlery and tracer: generally each plane.	guns. nedium
Such training is generally done on an artillery range using propeller-driven; bombers. Since fire is by batteries the gun is aimed by track; plane. The annunition is empor-viercing moundlery and tracer; generally easied will be a tracer shell.	guns. nedium ing the ch loth
Such training is generally done on an artilicity range using propeller-driven; bombers. Since fire is by batteries the gun is simed by track plane. The annunition is empor-pieroing meandlery and tracer: generally each plane.	guns.  medium ing the ing the ch loth  the inters units the main me of a me the area into the incentration the travel
Such training is generally done on an artillery range using propeller-driven; bombers. Since fire is by batteries the gun is sined by track plane. The samunition is emporphered in meandlery and tracer: generally easied will be a tracer shell.  In the tactical zone in a troop column, some of the LA MG's will be placed in advance guard. The majority of the LA guns will be somewhere near the headque in the column and another group of AA MG's or AA guns will be placed between the body of the column and the rear guard, if there is a rear guard. In the absence guard, the AA elements then will be at the end of the column. On reaching the concentration, the immediate task of the AA elements is to get themselves ares. Then troop columns are moving along military highways, which are undersease.  Sent troop columns are moving along military highways, which are undersease.	guns.  medium ing the ing the ch loth  the inters units the main me of a me the area into the incentration the travel
Such training is generally done on an artillery range using propeller-driven; bombers. Since fire is by batteries the gun is sined by track plane. The samunition is emporphered in meandlery and tracer: generally easied will be a tracer shell.  In the tactical zone in a troop column, some of the LA MG's will be placed in advance guard. The majority of the LA guns will be somewhere near the headque in the column and another group of AA MG's or AA guns will be placed between the body of the column and the rear guard, if there is a rear guard. In the absence guard, the AA elements then will be at the end of the column. On reaching the concentration, the immediate task of the AA elements is to get themselves ares. Then troop columns are moving along military highways, which are undersease.  Sent troop columns are moving along military highways, which are undersease.	guns.  medium ing the ing the ch loth  the inters units the main me of a me the area into the incentration the travel

THREE / SECTION IN THE MODEL TON

50X1-HUM

military roads. In the obsence of such previously located AA installations the AA elements may leapfrog. In the deep rear zone, troop movements will be mostly by train with AA elements loaded on the train so an to gave , northwar of protection. 50X1-HUM 21. In movement of columns, AA guns are towed by trucks. The distance between rehicles will be 20 to 50 meters; the distance between pletoons likewise will be 20 to 50 meters; the distance between batteries will be 76 to 100 meters; and that between divisions (battalions) will be up to 1,000 meters. 22. When a column is attacked the AA gune move to the side and are changed to firing position and open fire. Mon-anticircraft units, especially infantry, depending on the surroundings, will disperse and take cover. In the planning of a movement a FVC section makes definite plans for air defense measures during the movement. Observation posts are established in the column and procedure to be followed in case of an attack is worked out in advance. 23. When a column halts along the road, for example for a rest, anti-aircraft guns will be put into firing position if the halt is to last for more than a few minutes. Artiaircraft spotters will be alerted in accordance with the TVO plan for the movement. 24, number 21. Other air defense Normal intervals are given in measures include mounting of machine guns on trucks, machine guns on half-tracks ready to operate, volley or salvo style fire from rifles or automatic rifles. 25 The best camouflage is obtained by making such movements during darkness or under for or rain or snow. Further it is possible to camouflage some supplies or personnel in trucks 50X1-HUM but during ordinary devlicht hours it is not practical to mamouflage a large-scale movement. movements whose camouflage has been attempted by putting branches of trees onto trucks and guns. such camouflage was worke than no camouflage at all. In the deep rear, 50X1-HUM movements may be made by daylight while in the ares near the front, movements will be made chiefly at night. 26 During movements, fire direction is handled in contralized form on the basis of a planframi up by the divisional or unit estillery commander. The plan provides for various stages in the march, takes into account passage through any areas where artillery or AA fire would be forbidden, and provides for signals for communication purposes during the march. 27 28 In case of m attack by fighter-bembers the signal "Tozdukh (air attack)" would be given. The column would stop. Persound of clements of the column would disperse to the right or left according to previously decided plan and unit commanders would try to produce volley fire from rifles. Unances are that there would not be time to convert At gums to fire position. It could be expected that anti-aircraft fire from the machine-guns mounted up trucks and from those mounted on the helf-tracks could be made in time. If such attacks were frequent then the method of leap-frogging the MA elements would be adopted. SECRET/SECURITY INFORMATION

Sanitized Copy Approved for Release 2010/11/16: CIA-RDP80-00809A000600020026-7

SECRET/SECURITY INFORMATION

## SECRET

50X1-HUM

29,

The AA defense of a bivouse area of a division is worked out by the Chief of the Operation Section together with the Artillery Chief of the division. It is coordinated with the plans and chemical defense. It will include location of AA positions, location and numbering of aircraft sputting posts, provision for regular relief of personnel on duty at spotting posts, means of communication such as runners, telephone or radio, and signaling methods such as rockets.

30.

Main Supply Routes are provided with static anti-diroraft protection by AA installations at regular intervals along the route.

31.

As a rule AAA units do not dig in pieces of bivouse arear during day or night halts for sleep or during short halts. Usually for a fairly long halt a suitable area will be cleaned off and leveled and the AA guns converted to fire position. Pieces are dug in only under static conditions as for example, the permanent defense of a city.

32.

The role of AA and AAA units during offensive action is as follows: AA elements will be deployed at the points most sensitive to enemy aviation attack, such as, headquarters, bridges, railway installations and river crossings. The period of massing for an attack is especially important and AA elements will be deployed just as was described under question 29 for troop movements, that is, for defense of a bivouge area. A plan for the AA defense will be drawn up by the operational section is cooperation with the artillery commander covering in detail the location of AA positions, observation posts, and signal communications in advance.

33.

The functions of AA elements during pursuit is as follo : Tactics and technique will be to cover the most spots which are more sensitive to en my air attack of the forward rear; dispersion and deployment will be similar to those during a troop movement or march; while the command will be centralized at regimental level.

34.

As a general rule, the AA elements during the offence will be in the Second Echelon and therefore will not be in a position to ordinarily engage the enemy directly. It is hardly likely that a large caliber AA cun for example, 85 mm, would ever be used against a tank. On the other hand, some AA cuns such as the 37 mm might very well be used in a ground role and AA machine-guns could certainly be used in a secondary ground role.

-end-

## SECRET

SECRET/SECURITY INFORMATION